

ABSTRACT

A particle filter for a partially enclosed microelectromechanical systems that include a substrate material having at least one micro-device formed thereon. The particle filter includes a first structural layer forming a filter bottom and a second structural layer forming a filter wall. The filter bottom and filter wall are interconnected by at least one support feature to define a particle trap between the filter wall and filter bottom. The particle trap is a gap formed by mating, but non-interconnected portions of the filter wall and filter bottom that operates to trap and prevent particles from passing beyond the filter bottom into the microelectromechanical system.